City of Chula Vista

Staff Report

File#: 17-0518**, Item#: 7.**

RESOLUTION 2017-244 OF THE CITY COUNCIL OF THE CITY OF CHULA VISTA APPROVING THE PURCHASE OF VARIOUS NETWORKING HARDWARE AND SOFTWARE EQUIPMENT FROM NIC PARTNERS UTILIZING NASPO VALUEPOINT CONTRACT AR-233 (14-19) PA# 7-14-70 -04; AND APPROVING A PROFESSIONAL SERVICES AGREEMENT WITH NIC PARTNERS UTILIZING CALIFORNIA MULTIPLE AWARD SCHEDULE (CMAS) CONTRACT # 3-10-70-2473L FOR PROFESSIONAL SERVICES

RECOMMENDED ACTION
Council adopt the resolution.

SUMMARY
The City of Chula Vista's network infrastructure is inadequate to support the current computing environment, as well as future networking needs as will be required for our Smart Cities endeavors. This project will implement a high availability, secure and robust/scalable network to meet the City's network infrastructure needs for at least the next five to eight years.

ENVIRONMENTAL REVIEW

Environmental Notice
The Project qualifies for a Class 1 Categorical Exemption pursuant to Section 15301 (Existing Facilities) of the California Environmental Quality Act State Guidelines.

Environmental Determination
The Director of Development Services has reviewed the proposed project for compliance with the California Environmental Quality Act (CEQA) and has determined that the project qualifies for a Class 1 Categorical Exemption pursuant to Section 15301 (Existing Facilities) of the State CEQA Guidelines. Thus, no further environmental review is required.

BOARD/COMMISSION RECOMMENDATION
Not Applicable

DISCUSSION
As the City of Chula Vista moves forward with ambitious technology goals for citizen engagement, increasing productivity and improving the general quality of life for its citizens, the City must ensure that the core network infrastructure is able to support the various technological enhancements which are either being implemented or contemplated for implementation. The current network infrastructure is outdated and not able to meet the rapidly growing technological needs of the City.

The City's network is the backbone for all the technology we deploy throughout the City which enables our hard-working staff to increase productivity through the use of a variety of software

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platforms which increases employees' abilities to meet growing work demands. The network is also instrumental in allowing citizens and business owners to take advantage of a multitude of on-line business services. A poorly performing network not only causes disruptions in how our employees do their job, but can also inhibit our ability to deploy new technology initiatives which ultimately are there to improve the quality of life for our residents.

The City's Information and Technology Services Department recently had a comprehensive study completed on our network infrastructure which was conducted by NIC Partners. The study showed that the current network equipment in use by the City is in need of replacement. A majority of the network routers and switches have reached "end of sale" status (those particular pieces of network equipment can no longer be purchased) and 20% of the equipment is beyond "last day of support" status. When equipment is in "end of sale" status, there are no available fixes for new security vulnerabilities. At "last day of support" status, we can no longer contact CISCO (our network equipment manufacturer) for support on that equipment.

Below is a graphic detailing the state of our network equipment:

Group	# Devices	# LDoS Announced Devices	# EoS Devices	#EoE Devices	# EoSCR Devices	# LDoS Devices	# SNMP accessible
Cisco	92	74	71	68	67	17	87
CatOS	0	0	0	0	0	0	0
IOS	73	73	70	68	66	17	73
Other OS	6	1	1	0	1	0	1
Unknown \ Exception	13	0	0	0	0	0	13
Non-Cisco	0	0	0	0	0	0	0
Others	5	0	0	0	0	0	0
Total	97	74	71	68	67	17	87

"Unknown / Exceptions" are Cisco devices that failed to analyze.

"Non-Cisco" category contains devices identified as belonging vendors other than Cisco.

"Others" are devices that are not identified. May include both Cisco devices as well as other vendors devices

In the table above, Yellow indicates equipment that has reached "Last Day of Sale" or "End of Sale" status, Orange indicates "End of Engineering" or "End of Service Contract Renewal" (meaning CISCO will not renew service contracts on equipment), and Red indicates "Last Day of Support" status.

The study also showed that the overall network design and implementation does not offer any redundancy or segmentation. These are two important design considerations for complex networks such as ours. What this means is that if any one component fails within the network, there is a high probability that large portions of the network, or the entire network will go offline. Modern networks offer redundancy which allows for failover should a major piece of networking equipment such as a

router becomes disabled. Redundancy also allows for load balancing; meaning instead of all the City's data traffic flowing through one main router (current configuration), moth main routers will share the data load. This would also include a secondary internet connection with an alternative Internet Service Provider. If one internet connection goes down, the second internet connection would take over. Network segmentation in computer networking is the act of splitting a computer network into subnetworks, each being a separate network segment. Advantages of such splitting are primarily for boosting performance and improving security.

The report also detailed significant security vulnerabilities due to the age of the network equipment and the fact that 20% of the network equipment is beyond the "Last Day of Support" status.

In order to address these serious network issues, the Information and Technology Services Department (ITS) began researching for a suitable network infrastructure replacement. The ITS Department researched several competing network equipment providers and none of the other providers offered the state of the art network equipment/software combination which will thoroughly modernize and upgrade our network and propel the City forward with our Smart Cities goals. ITS currently utilizes CISCO networking equipment and we're very satisfied with the overall quality and stability of their networking equipment. CISCO is the clear market leader in network switching which brings with it a large support base in which ITS staff can readily access technology information (both formally through CISCO support and related 3rd party vendors, and also via internet technology forums). Additionally, ITS staff is well versed in programming CISCO routers and switches which will enable a smooth transition to the new networking equipment.

Purchasing Considerations

There are significant project enhancements which were negotiated with both CISCO and NIC Partners which in total will save the City approximately $915,000 on the entire project. This includes a "Golden Mile" project in which CISCO will provide state of the art iOT (Internet of Things) sensors for the City to begin testing various sensor platforms in order to help with our decision-making framework for our Smart Cities endeavors. These project enhancements require awarding contracts prior to the end of December to meet negotiated terms. The most pressing of these project enhancements is the waiving of CISCO SmartNet licensing and maintenance fee's totaling approximately $600,000. SmartNet licensing and maintenance is required in order for City staff to be able to contact CISCO technical support as well as to maintain access to critical software and security updates to the networking equipment. Without these updates, the City's network would be vulnerable to the ever increasing and serious threat of ransomware attacks, virus's and security breaches.

Staff is seeking to award contracts for this project utilizing various competitively bid contracts. Municipal Code § 2.56.140 allows the City to purchase supplies, equipment, and services utilizing cooperatively bid contracts. The ITS Department, has identified two competitively bid contracts which meet the requirements of Municipal Code § 2.56.140. City staff is recommending utilizing these contract vehicles due to the short time-frame required to take advantage of significant project enhancements for the network replacement project. Conducting a lengthy Request for Proposal (RFP) process will not be possible given the end-of-December deadline to take

advantage of the project enhancements. CISCO has stated that the SmartNet fee waiver or Golden-Mile project enhancements would not be available after December. Therefore, a lengthy RFP would not likely result in the same significant savings as has been negotiated. In accordance with Section 2.56.140, the City's Purchasing Agent has determined that the competitive processes used in connection with these cooperative agreements were consistent with good purchasing practices.

The network equipment and software for the network overhaul will be purchased via a competitively bid contract from NASPO ValuePoint. NASPO ValuePoint is the nation's largest public cooperative contracting organization. All of the cooperative contracts are led by one of the 50 states on behalf of the other states. ValuePoint is a non-profit subsidiary of the National Association of State Procurement Officials to provide states, local governments, public educational entities, etc. with best value contracts to support their important missions. The Professional Services (configuration, testing, installation of the network equipment, and 5-year service agreement) contract will be purchased via a California Multiple Award Schedule (CMAS) contract vehicle. CMAS offers a wide variety of commodities, non-IT services and information technology products and services at prices which have been assessed to be fair, reasonable and competitive. Since the total value of this contract is $3,498,399, Chula Vista Municipal Code §2.56.140 requires that any "contract, agreement, or arrangement exceeds $2,000,000, then City Council approval is required."

In order to purchase the network equipment/software, the City is required to utilize a third-party vendor since CISCO does not do direct sales. City ITS staff has extensive experience working with NIC Partners and they have done a significant amount of work analyzing our current network and helping chart our networking needs into the future. They have intimate knowledge of our network configuration and have provided the City an updated network design which will meet our current and future needs for network reliability and security. NIC Partners is a certified CISCO GOLD Partner, which is the highest level of CISCO partner certification available. There are only 24 CISCO GOLD partners in the State of California. CISCO has highly recommended that the City partner with NIC Partners given their extensive experience dealing with government agencies. ITS staff is seeking approval to utilize NIC Partners for the purchase of, as well as configure, test, install the new networking equipment and provide 5-years of network maintenance and technical support to the City.

The Professional Services agreement with NIC Partners will allow ITS Department staff to utilize NIC Partners' vast experience with CISCO networking equipment to assist with critical troubleshooting and repair of the network. They also provide enhanced network monitoring and software/security patch installations which will significantly assist the ITS Department in maintaining a healthy network. Because of the size and complexity of our network, the ITS Department simply does not have the appropriate number of qualified staff to devote to maintaining a network of this complexity. The value of having this agreement would be the equivalent of at least two full-time network engineers on staff at a fraction of the cost.

The amount budgeted for this project was set at $2,000,000 based upon initial estimates (Citywide Network Replacement project GGV0236). However, after further study of the network issues and looking at the long-term goals of this project, including the Telecommunications Replacement project, staff decided that enhancements were needed to the networking equipment which pushed the project costs beyond the $2,000,000 initial estimate. Because the network replacement project is critical to

the operation of the telecommunications replacement project, staff will also be utilizing $1,498,399 from the GGV0237 - Citywide Telecommunications project to cover all the necessary costs for this project. The Telecommunications project relies upon a stable, secure and Voice Over IP (VOIP) ready network. The network replacement project will provide the technological foundation for the Telecommunications project. Without a VOIP ready network, the City would require additional network upgrades farther down the line in order to accommodate a new phone system.

DECISION-MAKER CONFLICT
Staff has reviewed the decision contemplated by this action and has determined that it is not site-specific and consequently, the 500-foot rule found in California Code of Regulations Title 2, section 18702.2(a)(11), is not applicable to this decision for purposes of determining a disqualifying real property-related financial conflict of interest under the Political Reform Act (Cal. Gov't Code § 87100, et seq.).

Staff is not independently aware, and has not been informed by any City Council member, of any other fact that may constitute a basis for a decision maker conflict of interest in this matter.

LINK TO STRATEGIC GOALS
The City's Strategic Plan has five major goals: Operational Excellence, Economic Vitality, Healthy Community, Strong and Secure Neighborhoods and a Connected Community. The network replacement project positively affects all five strategic goals in that all departments and our citizens rely on a reliable and secure network to conduct City business.

CURRENT YEAR FISCAL IMPACT
There will be no impact to the General Fund for this project. Funds have been allocated from the Measure P tax initiative for this project. The total cost for the entire project is $3,498,398.97. As noted in the discussion section of this report, the City was able to negotiate approximately $915,000 in savings on the entire project. The table below details the costs associated with this project.

PROJECT COMPONENT	COST
Network Hardware and Software	$ 2,919,648.84
Professional Services	$ 420,135.00
Sales Tax	$ 158,615.13
CISCO SmartNet Maintenance	WAIVED
TOTAL COST	**$ 3,498,398.97**

FUNDING SOURCE	AMOUNT
Citywide Network Replacement Project (GGV0236)	$2,000,000.00
Citywide Telecommunications Replacement Project (GGV0237)	$1,498,398.97
Project Total Cost	**$3,498,398.97**
General Fund Impact	**$0.00**

Staff will be utilizing funds from the Citywide Network Replacement Project (GGV0236) as well as funds from the Citywide Telecommunications project (GGV0237) to cover the costs needed to complete the network project which will also prepare the network for a new Telecommunications (phone) system.

ONGOING FISCAL IMPACT

For the next five years, CISCO has waived both their SMARTnet and SMARTnet-SWSS maintenance fees (value of approximately $600,000). The Measure P tax initiative funding will cover five years of Professional Services by NIC Partners (which also had one free year included in the overall price). Beyond five years, the City will need to identify funding for future network upgrades as our network will undergo further fundamental changes as a result of our various technology initiatives, Smart City initiatives, and changes in network technology.

ATTACHMENTS
1. Resolution
2. 28522-9759000-CC PRO SERVICES - CMAS
3. 28523-9759000-CC CITY HALL - SECURITY-SPARES-ECT.NASPO
4. 28524-9759000-CC POLICE-PUBLICWORKS-LCDC-ETC.NASPO
5. CMAS Labor Contract 3-10-70-2473L Full Exp 11.30.19
6. CITY OF CHULA VISTA - TECHNOLOGY REFRESH SOW 12.06.17
7. Managed Services Agreement
8. CISCO_NASPO Master Agreement
9. NASPO California Addendum
10. NASPO Amendment

Staff Contact: Edward Chew, Director of Information and Technology Services